

Strongylodon secundus (Leguminosae), a Melanesian Species
Pacific Plant Studies 22¹

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THE PACIFIC SPECIES of *Strongylodon* are elongate, climbing vines, with fat, reticulate pods, large, hard seeds, and pendent inflorescences with brilliant reddish flowers. The writer discovered this species on Rotuma Island, but at the time it was in fruit only. It has proven to be of wider distribution, being found also in the New Hebrides, the Solomons, the Bismarcks, and New Guinea. As flowering and fruiting material are available from the Solomon Islands, a holotype is chosen from that area.

Strongylodon secundus sp. nov.

Figs. 1, 2

NOM. VERN.: "low" (Guadalcanal); "pidige-armallo" (Bougainville); "pirihiamu" (Bougainville).

DIAGNOSIS HOLOTYPE: Liana glabra volubilis et in arboribus scandens est, ramis foliosis 2–3.5 mm diametro glabris subviridibus, internodis 6–24 cm longis, stipulis 3–4 mm longis deltoideis, petiolis 3.8–8 cm longis, rhachidibus 20–32 mm longis, foliolis binis lateralibus cum stipelis 2–2.5 mm longis lineari-oblongis, petiolulis 5–6 mm longis, laminis 7–10 cm longis 4.6–7.5 cm latis obliquiter ovatis basi rotundata apice abrupte oblongi-subacuminato laminis firme chartaceis olivaceis glabris, nervis gracilibus sed evidentis, foliolo terminali cum stipelis et petiolulo simulantibus, lamina 7–13 cm longa 4.6–8 cm lata ovata concinna apice abrupte oblongi-subacuminato obtuse apiculato, inflorescentia axillari 25–26 cm longo cum racema terminali et racemulis lateralibus pluribus 6–10 cm longis, pedunculo 6–10 cm longo, racemulis cum pedunculo 1–5 cm longo, floribus salmonis et 2–5 in pulvino omnino 1.3–1.5 mm lato hemisphaerico productis, pedi-

celis 1–2 cm longis filiformibus adscendenti-divergentibus plerumque secundis, floribus numerosis (in typo 450) sed uno solo semine ferrenti, pedicelis cum 2 bracteis apicalibus caducis 1 mm longis ovatis concavis brunneis 5-nerviis margine membranaceo pallido minute ciliato, calyce in alabastro anguste cylindrico in flore 5–5.5 mm longo 3–3.5 mm lato anguste oblique infundibuliformi-cylindrico viridi sed in sicco subbrunneo nervis obscuris apice obliquo, 5 lobis 0.2–0.4 mm longis profunde convexis ciliolatis, vexillo 18 mm longo 8 mm lato lamina ovata cum 29 nervis longitudinalibus, alis 15–16 mm longis, ungui 4 mm longo, lamina 4–4.5 mm lata semirhombica margine supero in basi auriculato, carina 26–28 mm longa 4–4.5 mm alta demisse lunata acuta ungui 3 mm longo, staminibus inclusis, stylo et stigmatate denique exsertis.

DIAGNOSIS OF HOLOTYPE: Vine, glabrous, twining and climbing up trees; leafy branches 2–3.5 mm in diameter, glabrous, greenish; internodes 6–24 cm long; stipules 3–4 mm long, deltoid; petioles 3.8–8 cm long; rhachis 20–32 mm long; the two lateral leaflets with stipels 2–2.5 mm long, linear-oblong, and petiolules 5–6 mm long, the blades 7–10 cm long, 4.6–7.5 cm wide, obliquely ovate, the base rounded, the apex abruptly oblong-subacuminate, the tissue firm chartaceous, olive green, glabrous, the veins slender but noticeable; terminal leaflet with similar stipels and petiolules, the blade 7–13 cm long, 4.6–8 cm wide, ovate, symmetrical, the apex abruptly oblong-subacuminate, bluntly apiculate; inflorescence axillary, 25–26 cm long, of a terminal and several lateral racemes 6–10 cm long; peduncle 6–10 cm long; the lateral racemes with peduncles 1–5 cm long; flowers salmon pink, in clusters of 2–5, borne from a pulvinus or short-shoot 1.3–1.5 mm across, hemispheric; pedicels 1–2 cm long, filiform, ascending divergent, mostly secund; flow-

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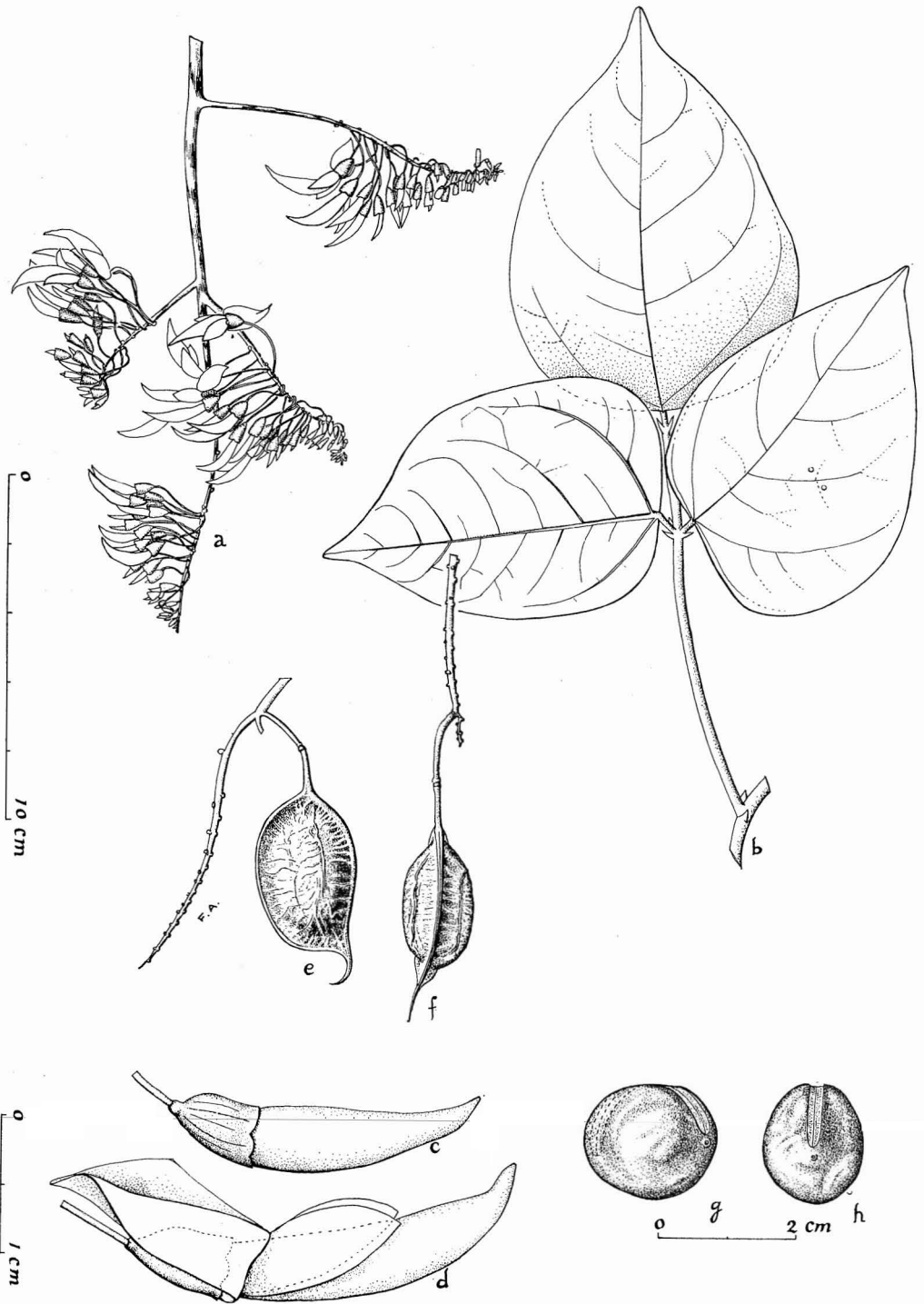


Fig. 1. *a*, inflorescence, $\times \frac{1}{2}$; *b*, pinnate leaf, $\times \frac{1}{2}$; *c*, flower bud, $\times 2$; *d*, mature flower, $\times 2$; *e*, pod, lateral view, $\times \frac{1}{2}$; *f*, pod, dorsal view, $\times \frac{1}{2}$; *g*, *h*, seed, $\times 1$.

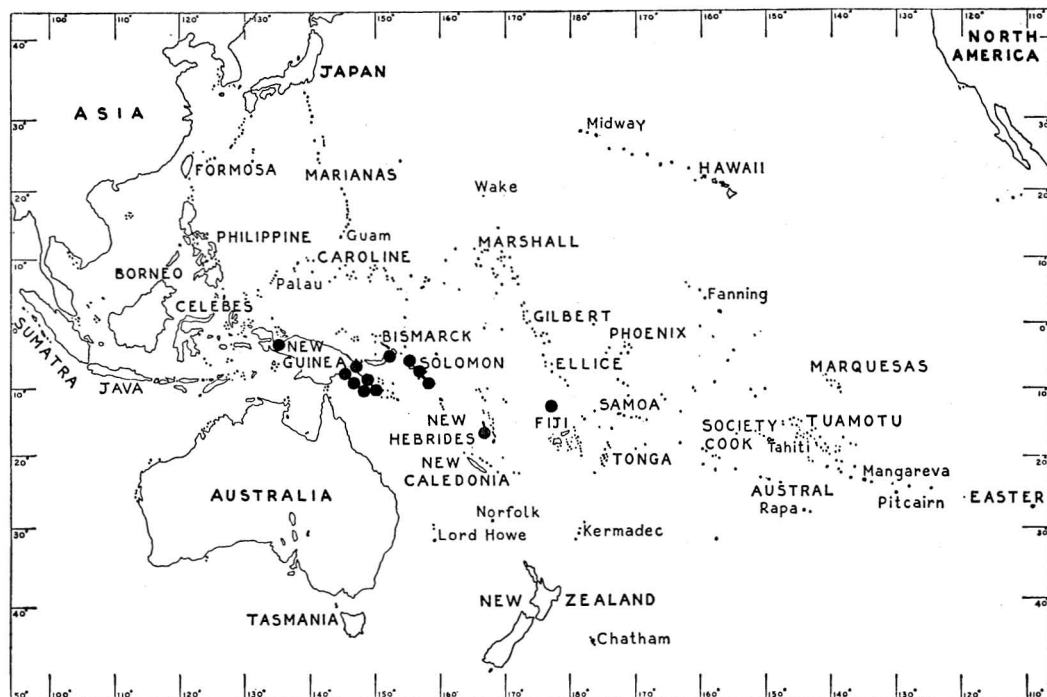


Fig. 2. Map of distribution of *Strongylodon secundus* St. John.

ers numerous, as on the holotype the inflorescences have 4-5 racemes, each of which has 25-30 flowering nodes, and the whole with a total of some 450 flowers, and of these normally only one sets fruit; pedicels bearing 2 apical caducous bracts 1 mm long, ovate, concave, brown, 5-nerved, the membranous pale margin minutely ciliate; calyx in bud narrowly cylindric, in flower 5-5.5 mm long, 3-3.5 mm wide, narrowly oblique funnelform-cylindric, green, turning brownish on drying, obscurely veined, the apex oblique, the 5 lobes 0.2-0.4 mm long, low convex, ciliate; banner 18 mm long, 8 mm wide, the limb ovate, with 29 longitudinal nerves; wings 15-16 mm long, the claw 4 mm long, the limb 4-4.5 mm wide, semirhombic, the lower angle obtuse, the upper edge auriculate at base; keel 26-28 mm long, 4-4.5 mm high, low lunate, acute, the claw 3 mm long; stamens included; style and stigma finally exserted.

FRUITING SPECIMEN (*Kajewski* 1,845): Fruiting pedicel 14-17 mm long, straight; torus swollen; stipe 13-15 mm long; pod body 34-

38 mm long, 22-24 mm wide, 22 mm thick, asymmetric ellipsoid, distended over the single large seed, pale greenish, with coarse, raised, reticulate venation, the margins leading to the two sutures flat, and the edge heavy ribbed, apparently indehiscent, the apex with a curved stylar beak 6-8 mm long; seed nearly globose, 14.5 mm in diameter, dark reddish brown, smooth, shining; micropyle evident as a slit in a depression, and just beyond it begins the hilum 22 mm long, 1 mm wide, pale brown, conspicuous.

EXPANDED DESCRIPTION: Lateral leaflet blades 5.5-11.5 cm long, 3.6-10 cm wide; terminal leaflet 4.6-12.8 cm wide; pod body 34-47 mm long, 22-27 mm wide (very rarely 2-seeded, and then 60-64 mm long); seed subglobose, 14.5-18 mm long, 14-16 mm wide, 13 mm thick.

HOLOTYPE: Solomon Islands, Guadalcanal I., Oulolo, near Tutuve Mt., common, climbing up the rain forest trees, 1,200 m. alt., April 14, 1931, *S. F. Kajewski* 2,493 (BISH). Isotypes (BRI, G, L).

SPECIMENS EXAMINED: Indonesian New Guinea, Nabire, 24/11/1940, R. Kanehira and S. Hatusima 11,506 (K).

Australian New Guinea (Kaiser-Wilhelmsland): Constatinhafen, M. Hollrung 584 (K); and ditto, in 1887, Hollrung (K); Lauterbach 98 (K); 1896, Lauterbach 33 (G); 1896, Lauterbach 613 (K); Constantin Hafn, R. Schlechter 14,269 (BO, K); and 16,080 (K, NY).

Papua: Upoia, Vailala R., 15.3.1926, L. J. Brass 1,156 (BRI, K); Rona, Laloki R., Central Dist., rain forest of valley slopes, 450 m. alt., April 1933, Brass 3,584 (BM, BRI, NY); Kanosia, climbing up riverside trees, sea level, 2-4-35, C. E. Carr 11,750 (K, L); Rouna, forest lining stream on very steep slopes, 1,300 ft. alt., 3-5-35, Carr 12,447 (K, L); Burava, forest, 3,500 ft. alt., 14-2-36, Carr 15,733 (L); Morobe Dist., Heldsbade, 60-100 fms, 21 V 1936, Clemens 3,188 (G); Jct. Adai and Inumu Rivers, 2,200 ft. alt., Feb. 1923, C. E. Lane-Pool 402 (K); Fife Bay, Sept. 1930, R. Lister Turner 73 (BRI).

Bismarck Archipelago: New Britain, Gazelle Peninsula, logging area, Keravat, strong climber in tops of regrowth trees, 300 ft. alt., 4/1/55, A. Floyd 6,697 (BISH, LAE); ditto, 400 ft. alt., 8/3/56, J. S. Womersley NGF 7,950 (BISH, LAE).

Solomon Islands: Guadalcanal; see the holotype.

New Georgia I., Tatu Hiqohiqo or Aroso

Noki, 4/VII/1929, J. H. L. Waterhouse 140 (K).

Bougainville I.: Pirihiamu, Siwai, May 1931, Waterhouse 427 (K); Siwai, vine from river bank, Jan. 1932, Waterhouse 675A (K); n.e. part, Namatoa, 7/III/1932, Waterhouse (K); Kekepe, Crown Prince Range, s. slopes, 2,000 ft. alt., March 1936, A. H. Joyce 11 (K).

New Hebrides, Efate I., Undine Bay, common, rain forest, 100 m. alt., April 24, 1928, Kajewski 192 (BRI, K, NY); Capt. Rason Exped., May 1903, W. T. Quaipe (SYD).

Rotuma Island: Uea Island, climbing over thicket near summit, 830 ft. alt., Aug. 21, 1938, St. John 19,624 (BISH).

DISCUSSION: The new species somewhat resembles *S. siderospermum* Cordemoy, of Reunion Island, but actually it is closer to *S. lucidus* (Forst. f.) Seem, of Tahiti. This species has the inflorescence a simple raceme; calyx 8 mm long; wings 19 mm long; pod body 6-7 cm long, 3.3-3.6 cm wide; seed 20×18 mm, subglobose, jet black, dull. *S. secundus* has the inflorescence compound, with 4-5 racemes; calyx 5-5.5 mm long; wings 15-16 mm long; pod body 3.4-4.7 cm long, 2.2-2.7 cm wide; seed $14.5-18 \times 14-16$ mm, subglobose, dark reddish brown, smooth, shining.

The new epithet is the Latin adjective *secundus*, following the first, and, in botany, with the parts (as the flowers) all directed to one side. This fits the flower arrangement in this species.